

FIGURE 1

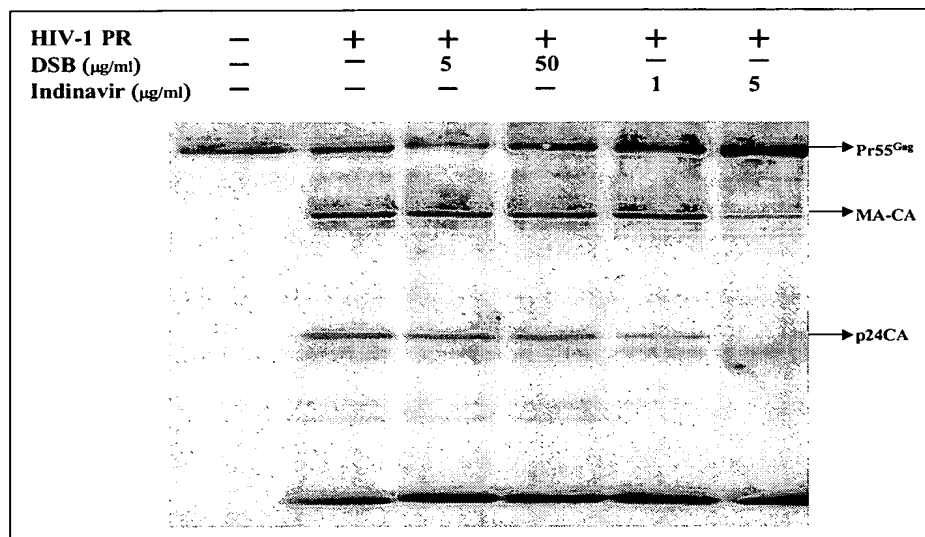


FIGURE 2

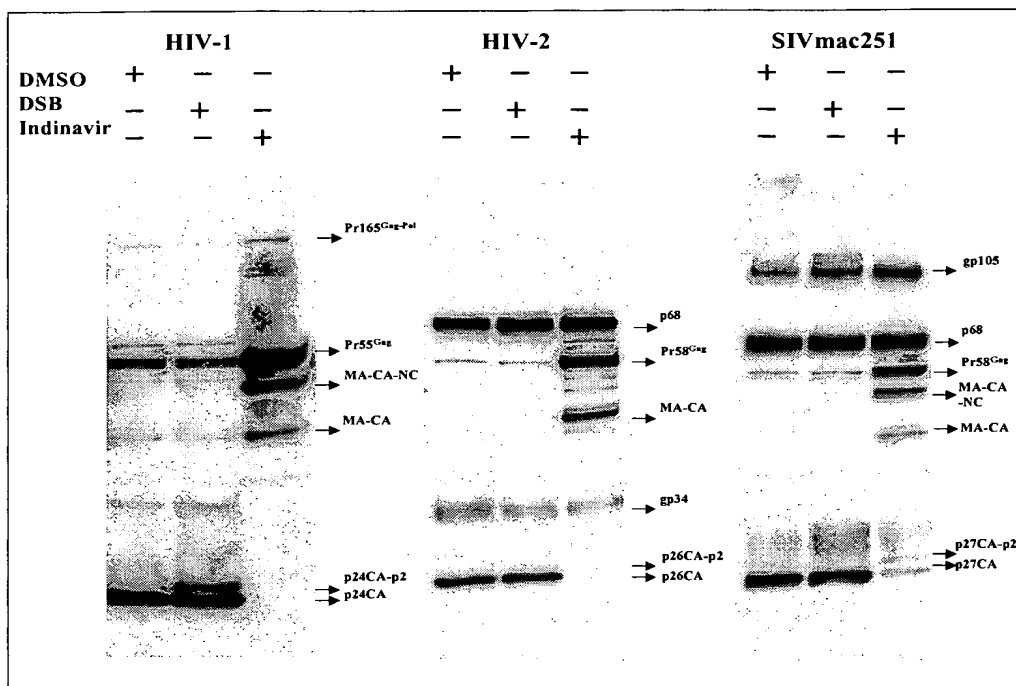


FIGURE 3

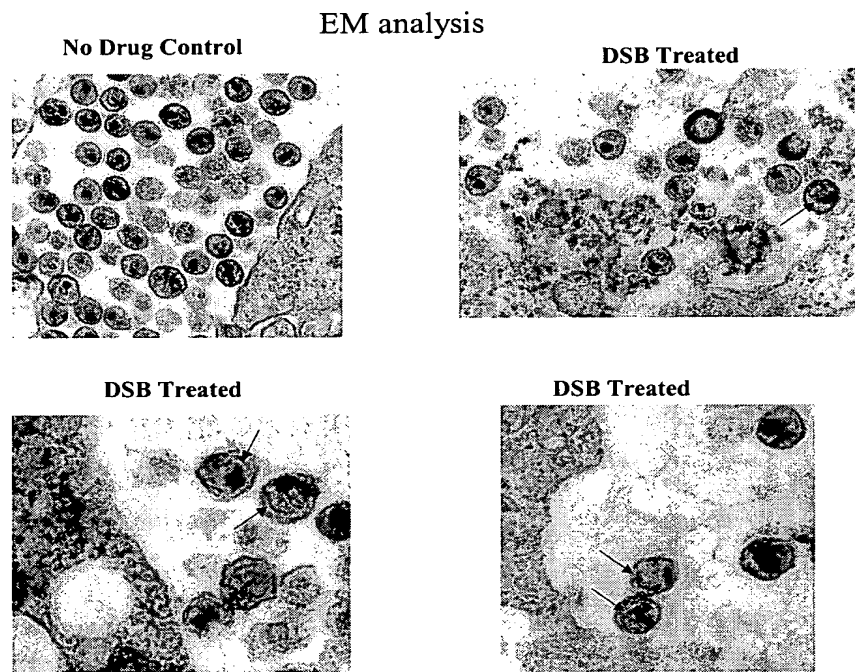


FIGURE 4

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Gag sequence #1: K-A-R-V-L/I-|**A**-E-**A**-M-S (SEQ ID NO: 1)

Gag sequence #2: K-A-R-V-L-|**V**-E-A-M-S (SEQ ID NO: 2)

Gag sequence #3: K-A-R-V-I-|A-E-**V**-M-S (SEQ ID NO: 3)

FIGURE 5
(SEQ ID NO: 4)

ATGGGTGCGAGAGCGTCGGTATTAAGCGGGGGAGAATTAGATAAATGG
GAAAAAATTCGGTTAAGGCCAGGGGGAAAGAAACAATATAAACTAAAA
CATATAGTATGGGCAAGCAGGGAGCTAGAACGATTCGCAGTTAATCCT
GGCCTTTTAGAGACATCAGAAGGCTGTAGACAAATACTGGGACAGCTA
CAACCATCCCTTCAGACAGGATCAGAAGAACTTAGATCATTATATAAT
ACAATAGCAGTCCTCTATTGTGTGCATCAAAGGATAGATGTAAAAGAC
ACCAAGGAAGCCTTAGATAAGATAGAGGAAGAGCAAAACAAAAGTAAG
AAAAAGGCACAGCAAGCAGCAGCTGACACAGGAAACAACAGCCAGGTC
AGCCAAAATTACCCTATAGTGCAGAACCTCCAGGGGGCAAATGGTACAT
CAGGCCATATCACCTAGAACTTTAAATGCATGGGTAAAAGTAGTAGAA
GAGAAGGCTTTCAGCCCAGAAGTAATACCCATGTTTTTCAGCATTATCA
GAAGGAGCCACCCACAAGATTTAAATACCATGCTAAACACAGTGGGG
GGACATCAAGCAGCCATGCAAATGTTAAAAGAGACCATCAATGAGGAA
GCTGCAGAAATGGGATAGATTGCATCCAGTGCATGCAGGGCCTATTGCA
CCAGGCCAGATGAGAGAACCAAGGGGAAGTGACATAGCAGGAACACT
AGTACCCTTCAGGAACAAATAGGATGGATGACACATAATCCACCTATC
CCAGTAGGAGAAATCTATAAAAGATGGATAATCCTGGGATTAAATAAA
ATAGTAAGAATGTATAGCCCTACCAGCATTCTGGACATAAGACAAGGA
CCAAAGGAACCCTTTAGAGACTATGTAGACCGATTCTATAAACTCTA
AGAGCCGAGCAAGCTTCACAAGAGGTAAAAAATTGGATGACAGAAACC
TTGTTGGTCCAAAATGCGAACCAGATTGTAAGACTATTTTAAAAGCA
TTGGGACCAGGAGCGACACTAGAAGAAATGATGACAGCATGTCAGGGA
GTGGGGGGACCCGGCCATAAAGCAAGAGTTTTGGTTGAAGCAATGAGC
CAAGTAACAAATCCAGCTACCATAATGATACAGAAAGGCAATTTTAGG
AACCAAAGAAAGACTGTTAAGTGTTTCAATTGTGGCAAAGAAGGGCAC
ATAGCCAAAATTGCAGGGCCCCTAGGAAAAAGGGCTGTTGGAAATGT
GGAAAGGAAGGACACCAAATGAAAGATTGTACTGAGAGACAGGCTAAT
TTTTTAGGGAAGATCTGGCCTTCCCACAAGGGAAGGCCAGGGAATTTT
CTTCAGAGCAGACCAGAGCCNACAGCCCCACCAGAAGAGAGCTTCAGG
TTTGGGGAAGAGACAACAACCTCCCTCTCAGAAGCAGGAGCCGATAGAC
AAGGAACTGTATCCTTTAGCTTCCCTCAGATCACTCTTTGGCAGCGAC
CCCTCGTCACAATAAAGATAGGGGGGCAATTAAAGGAAGCTCTATTAG
ATACAGGAGCAGATGATACAGTATTAGAAGAAATGAATTTGCCAGGAA
GATGGAAACCAAAAATGATAGGGGGGAATTGGAGGTTTTATCAAAGTAA
GACAGTATGATCAGATACTCATAGAAATCTGCGGACATAAAGCTATAG
GTACAGTATTAGTAGGACCTACACCTGTCAACATAATTGGAAGAAATC
TGTTGACTCAGATTGGCTGCACTTTAAATTTTCCCATTAGTCCTATTG
AGACTGTACCAGTAAAATTAAAGCCAGGAATGGATGGCCCCAAAAGTT

FIGURE 6
(SEQ ID NO: 5)

ATGGGTGCGAGAGCGTCGGTATTAAGCGGGGGAGAATTAGATAAATGG
GAAAAAATTCGGTTAAGGCCAGGGGGAAAGAAACAATATAAACTAAAA
CATATAGTATGGGCAAGCAGGGAGCTAGAACGATTCGCAGTTAATCCT
GGCCTTTTAGAGACATCAGAAGGCTGTAGACAAATACTGGGACAGCTA
CAACCATCCCTTCAGACAGGATCAGAAGAACTTAGATCATTATATAAT
ACAATAGCAGTCCTCTATTGTGTGCATCAAAGGATAGATGTAAAAGAC
ACCAAGGAAGCCTTAGATAAGATAGAGGAAGAGCAAAACAAAAGTAAG
AAAAAGGCACAGCAAGCAGCAGCTGACACAGGAAACAACAGCCAGGTC
AGCCAAAATTACCCTATAGTGCAGAACCTCCAGGGGGCAAATGGTACAT
CAGGCCATATCACCTAGAACTTTAAATGCATGGGTAAAAGTAGTAGAA
GAGAAGGCTTTCAGCCCAGAAGTAATACCCATGTTTTTCAGCATTATCA
GAAGGAGCCACCCACAAGATTTAAATACCATGCTAAACACAGTGGGG
GGACATCAAGCAGCCATGCAAATGTTAAAAGAGACCATCAATGAGGAA
GCTGCAGAATGGGATAGATTGCATCCAGTGCAGGCAGGGCCTATTGCA
CCAGGCCAGATGAGAGAACCAAGGGGAAGTGACATAGCAGGAAGTACT
AGTACCCTTCAGGAACAAATAGGATGGATGACACATAATCCACCTATC
CCAGTAGGAGAAATCTATAAAAGATGGATAATCCTGGGATTAAATAAA
ATAGTAAGAATGTATAGCCCTACCAGCATTCTGGACATAAGACAAGGA
CCAAAGGAACCCTTTAGAGACTATGTAGACCGATTCTATAAACTCTA
AGAGCCGAGCAAGCTTCACAAGAGGTAAAAAATTGGATGACAGAAACC
TTGTTGGTCCAAAATGCGAACCAGATTGTAAGACTATTTTAAAGCA
TTGGGACCAGGAGCGACACTAGAAGAAATGATGACAGCATGTCAGGGA
GTGGGGGGACCCGGCCATAAAGCAAGAGTTTTTGGCTGAAGCAATGAGC
CAAGTAACAAATCCAGCTACCATTAATGATACAGAAAGGCAATTTTAGG
AACCAAAGAAAGACTGTTAAGTGTTTCAATTGTGGCAAAGAAGGGCAC
ATAGCCAAAATTGCAGGGCCCCTAGGAAAAAGGGCTGTTGGAAATGT
GGAAAGGAAGGACACCAAATGAAAGATTGTACTGAGAGACAGGCTAAT
TTTTTAGGGAAGATCTGGCCTTCCCACAAGGGAAGGCCAGGGAATTTT
CTTCAGAGCAGACCAGAGCCAACAGCCCCACCAGAAGAGAGCTTCAGG
TTTGGGGAAGAGACAACACTCCCTCTCAGAAGCAGGAGCCGATAGAC
AAGGAACTGTATCCTTTAGCTTCCCTCAGATCACTCTTTGGCAGCGAC
CCCTCGTCACAATAAAGATAGGGGGGCAATTAAAGGAAGCTCTATTAG
ATACAGGAGCAGATGATACAGTATTAGAAGAAATGAATTTGCCAGGAA
GATGGAAACCAAAAATGATAGGGGGGAATTGGAGGTTTTATCAAAGTAA
GACAGTATGATCAGATACTCATAGAAATCTGCGGACATAAAGCTATAG
GTACAGTATTAGTAGGACCTACACCTGTCAACATAATTGGAAGAAATC
TGTTGACTCAGATTGGCTGCACTTTAAATTTTCCCATTAGTCCTATTG
AGACTGTACCAGTAAAATTAAAGCCAGGAATGGATGGCCCAAAG

FIGURE 7A
(SEQ ID NO: 6)

ATGGGTGCGAGAGCGTCAGTATTAAGCGGCGGAAAATTAGACAAATGG
GAAAAAATTCGGTTAAGGCCAGGGGGAAAGAAAAGATATAAGTTAAAA
CATATAATATGGGCAAGCAGGGAGCTAGAACGATTTGCTGTCAATCCT
GGCCTTTTAGAGACAGCAGAGGGCTGTAGACAAATACTGGGACAGCTA
CAACCAGCCCTTCAGACAGGATCAGAAGAACTTAAATCATTATATAAT
GCAGTAGCAACCCTCTATTGTGTACATCAAAATATAGAGGTAAGAGAC
ACCAAGGAAGCTTTAGACAAGATAGAGGAAGAGCAAAACAAAAGTAAG
AAAAAAGCACAGCAAGCAGCAGCTGACACAGGAAACGGCAGCCAGGTC
AGCCAAAATTACCCTATAGTGCAGAACCCTTCAGGGGGCAAATGGTACAT
CAAGCCATATCACCTAGAACTTTAAATGCATGGGTAAAAGTAGTAGAA
GAGAAGGCTTTTAGCCCAGAAGTAATAACCCATGTTTTTCAGCATTATCA
GAAGGAGCCACCCACAAGATTTAAACACCATGCTAAACACAGTGGGG
GGACATCAAGCAGCCATGCAAATGTTAAAAGAGACTATCAATGAGGAA
GCTGCAGAAATGGGATAGATTGCATCCAGTGCAAGCAGGGCCTATTGCA
CCAGGCCAGATGAGAGAACCAAGGGGAAGTGACATAGCAGGAACCACT
AGTACCCTTCAGGAACAAATAGGATGGATGACAAATAATCCACCTATC
CCAGTAGGAGAAATCTATAAAAGGTGGATAATTCTGGGATTAAATAAA
ATAGTAAGAATGTATAGCCCCATCAGCATTCTGGACATAAGACAAGGA
CCTAAGGAACCCTTTAGAGACTATGTAGACCGGTTCTATAAACTCTA
AGAGCCGAGCAAGCTTCACAGGATGTAAAAAATTGGATGACAGAAACC
TTGCTGGTCCAAAATGCGAACCAGATTGTAAAACTATTTTAAAAGCA
TTGGGACCAGCAGCTACACTAGAAGAAATGATGACAGCATGTCAGGGA
GTAGGGGGACCCAGCCATAAAGCAAGAATTTTGGCTGAAGTAATGAGC
CAAGTAACAAATTCAGCTACCATAATGCTGCAGAAAGGTAATTTTAGG
GACCAAAGAAAAATTGTTAAGTGTTTCAACTGTGGCAAAGTAGGGCAC
ATAGCCAAAAATTGCAGGGCCCCTAGGAAAAAGGGCTGTTGGAAATGT
GGAAAGGAAGGACACCAAATGAAAGATTGCACTAGTGAGGGACGACAG
GCTAATTTTTTTAGGGAAAAATCTGGCCTTCCCACAAGGGAAGGCCAGGG
AACTTTCTTCAGAGCAGACCAGAGCCAACAGCCCCACCAGAAGAGAGC
TTCAGGTTTGGGGAAGAGACAACCTCCCTCTCAGAAGCAGGAGAAGATA
GACAAGGAAGTGTATCCTTTAGCTTCCCTCAAATCACTCTTTGGCAAC
GACCCATCGTTCACAGTAAAGATAGGGGGGCAATTAAAGGAAGCTCTAT
TAGATACAGGAGCAGATGATACAGTATTAGAAGAAATGAATTTGCCAG
GAAAATGGAAACCAAAAATGATAGGGGGGAATTGGAGGTTTTATCAAAG
TAAGGCAGTATGATCAAATACTCATAGAAATCTGTGGACATAAAGCTA
TAGGTACAGTATTAGTAGGACCTACACCTGTCAACATAATTGGAAGAA
ATCTGTTGACTCAGATTGGTTGCACTTTAAATTTTCCCATTAGTCCTA
TTGAAACTATACCAGTAAAATTAAAGCCAGGAATGGATGGCCCAAAAG
TTAAACAATGGCCATTGACAGAGGAAAAAATAAAAGCATTGATAGAAA
TTTGTACAGAAATGGAAAAGGAAGGAAAAATTTCAAAAATTGGGCCTG

FIGURE 7B

AAAATCCATACAATACTCCAGTATTTGCCATAAAGAAAAANGACAGTA
CTAAATGGAGAAAA

FIGURE 8

(SEQ ID NO: 7)

ATGGGTGCGAGAGCGTCAGTATTAAGCGGCGGAAAATTAGACAAATGG
GAAAAAATTTCGGTTAAGGCCAGGGGGAAAGAAAAGATATAAGTTAAAA
CATATAATATGGGCAAGCAGGGAGCTAGAACGATTTGCTGTCAATCCT
GGCCTTTTAGAGACAGCAGAGGGCTGTAGACAAATACTGGGACAGCTA
CAACCAGCCCTTCAGACAGGATCAGAAGAACTTAAATCATTATATAAT
GCAGTAGCAACCCTCTATTGTGTACATCAAAATATAGAGGTAAGAGAC
ACCAAGGAAGCTTTAGACAAGATAGAGGAAGAGCAAAACAAAAGTAAG
AAAAAAGCACAGCAAGCAGCAGCTGACACAGGAAACGGCAGCCAGGTC
AGCCAAAATTACCCTATAGTGCAGAACCTTCAGGGGCAAATGGTACAT
CAAGCCATATCACCTAGAACTTTAAATGCATGGGTAAAAGTAGTAGAA
GAGAAGGCTTTTAGCCCAGAAGTAATACCCATGTTTTTCAGCATTATCA
GAAGGAGCCACCCCAAGATTTAAACACCATGCTAAACACAGTGGGG
GGACATCAAGCAGCCATGCAAATGTTAAAAGAGACTATCAATGAGGAA
GCTGCAGAAATGGGATAGATTGCATCCAGTGCAAGCAGGGCCTATTGCA
CCAGGCCAGATGAGAGAACCAAGGGGAAGTGACATAGCAGGAACCACT
AGTACCCTTCAGGAACAAATAGGATGGATGACAAATAATCCACCTATC
CCAGTAGGAGAAATCTATAAAAGGTGGATAATTCTGGGATTAAATAAA
ATAGTAAGAATGTATAGCCCCATCAGCATTCTGGACATAAGACAAGGA
CCTAAGGAACCCTTTAGAGACTATGTAGACCGGTTCTATAAACTCTA
AGAGCCGAGCAAGCTTCACAGGATGTAAAAAATTGGATGACAGAAACC
TTGCTGGTCCAAAATGCGAACCCAGATTGTAAAACTATTTTAAAGCA
TTGGGACCAGCAGCTACACTAGAAGAAATGATGACAGCATGTCAGGGA
GTAGGGGGACCCAGCCATAAAGCAAGAATTTTGGCTGAAGCAATGAGC
CAAGTAACAAATTCAGCTACCATAATGCTGCAGAAAGGTAATTTTAGG
GACCAAAGAAAAATTGTTAAGTGTTTCAACTGTGGCAAAGTAGGGCAC
ATAGCCAAAAATTGCAGGGCCCCTAGGAAAAAGGGCTGTTGGAAATGT
GGAAAGGAAGGACACCAAATGAAAGATTGCACTAGTGAGGGACGACAG
GCTAATTTTTTTAGGGAAAATCTGGCCTTCCCACAAGGGAAGGCCAGGG
AACTTTCTTCAGAGCAGACCAGAGCCAACAGCCCCACCAGAAGAGAGC
TTCAGGTTTGGGGAAGAGACAACCTCCCTCTCAGAAGCAGGAGAAGATA
GACAAGGAAGTGTATCCTTTAGCTTCCCTCAAATCACTCTTTGGCAAC
GACCCATCGTTCAGTAAAGATAGGGGGGCAATTAAAGGAAGCTCTAT
TAGATACAGGAGCAGATGATACAGTATTAGAAGAAATGAATTTGCCAG
GAAAATGGAAACCAAAAATGATAGGGGGAATTGGAGGTTTTATCAAAG
TAAGGCAGTATGATCAAATACTCATAGAAATCTGTGGACATAAAGCTA
TAGGTACAGTATTAGTAGGACCTACACCTGTCAACATAATTGGAAGAA
ATCTGTTGACTCAGATTGGTTGCACTTTAAATTTTCCATTAGTCCTA
TTGAAACTATACCAGTAAAATTAAAGCCAGGAATGGATGGCCCCAAAAG
TTAAACAATGGCCATTGACAGAGGAAAAAATAAAAGCATTGATAGAAA
TTTGTACAGAAATGGAAAAGGAAGGAAAAAT

FIGURE 9

AAAGCAAGAGTTTTGGTGAAGCAATGAGC (SEQ ID NO: 8)

AAAGCAAGAATTTTGGCTGAAGTAATGAGC (SEQ ID NO: 9)

AAAGCAAGAGTTTTGGCTGAAGCAATGAGC (SEQ ID NO: 10)

FIGURE 10

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K-A-R-L-M-|A-E-A-L-K (SEQ ID NO: 11)